

CLAIMS

I claim:

1. A turbine generator apparatus for generating electricity from solar radiation and wind, the turbine generator apparatus comprising:

a base assembly having a lower portion and an upper portion, said lower portion being adapted for resting on a support surface, said lower portion being for supporting said upper portion of said base assembly;

a solar assembly being coupled to said upper portion of said base assembly, said solar assembly being adapted for collecting solar radiation and converting the solar radiation into electricity;

a power storage assembly being operationally coupled to said solar assembly, said power storage assembly being adapted for storing electricity from said solar assembly, said power storage assembly being positioned within said lower portion of said base assembly such that said lower portion of said base assembly is adapted for protecting said power storage assembly from adverse weather; and

a turbine assembly being coupled to said upper portion of said base assembly, said turbine assembly being adapted for producing electricity from wind, said turbine assembly being operationally coupled to said power storage assembly such that said power

storage assembly is adapted for storing electricity produced from said turbine assembly.

2. The turbine generator apparatus as set forth in claim 1, further comprising:

said base assembly having a junction portion, said junction portion being positioned between said lower portion and said upper portion, said junction portion being rotatably coupled to said lower portion of said base assembly such that said junction portion is rotatable with respect to said lower portion of said base assembly, said upper portion being pivotally coupled to said junction portion such that said upper portion pivots with respect to said junction portion, said junction portion being adapted for permitting said solar assembly to be directed towards the sun, said junction portion being adapted for permitting said turbine assembly to be directed into the wind.

3. The turbine generator apparatus as set forth in claim 2, further comprising:

a processing assembly being operationally coupled to said junction portion of said base assembly, said processing assembly being for effecting rotation of said junction portion with respect to said lower portion of said base assembly and pivoting of said upper portion with respect to said junction portion when said solar assembly is to be directed towards the sun and said turbine assembly is to be directed into the wind.

4. The turbine generator apparatus as set forth in claim 1, further comprising:

said solar assembly comprising a plate portion, said plate portion being coupled to said upper portion of said base assembly, said solar assembly comprising a plurality of solar cells, each of said solar cells being positioned on an upper surface of said plate portion, each of said solar cells being adapted for converting solar radiation into electricity, each of said solar cells being operationally coupled to said power storage assembly such that said power storage assembly stores electricity from each said solar cells.

5. The turbine generator apparatus as set forth in claim 1, further comprising:

said turbine assembly comprising a head assembly and a stanchion, said stanchion being coupled to said upper portion of said base assembly such that said stanchion upwardly extends from said solar assembly, said head assembly being rotatably coupled to said stanchion opposite said base assembly, said head assembly being adapted for being rotated with respect to said stanchion of said turbine assembly when said head assembly is directed into the wind.

6. The turbine generator apparatus as set forth in claim 5, further comprising:

said turbine assembly having a shroud sleeve, said shroud sleeve being upwardly extending from said solar assembly, said shroud sleeve having a lumen such that said stanchion is extending through said lumen of said shroud sleeve, said stanchion being retractable with said shroud sleeve such that said head assembly is retractable into said lumen of shroud sleeve for protecting said head assembly from adverse weather.

7. The turbine generator apparatus as set forth in claim 5, further comprising:

said head assembly comprising a pair a blades, each of said blades being coupled to a shaft, one of said blades diametrically extending away from the other of said blades, each of said blades having an airfoil cross-section such that the wind striking said blades forces said blades into rotary motion thereby rotating said shaft, said shaft being operationally coupled to a generator.

8. The turbine generator apparatus as set forth in claim 7, further comprising:

said blades comprising a first blade and a second blade, said first blade being coupled to said shaft, said second blade having a collar, said collar having an aperture such that said aperture of said collar being for receiving said shaft, said collar having a cut out, said cut out receiving said first blade when said second blade is positioned diametrically to said first blade such that said blades are balanced when said blades are rotated by the wind, said collar of said second blade permitting rotation of said second blade adjacent to said first blade for facilitating storage of said head assembly.

9. The turbine generator apparatus as set forth in claim 5, further comprising:

said head assembly of said turbine assembly having a plurality of vanes, each of said vanes extending between a pair of annular rings, each of said annular rings being coupled to said stanchion such that said vanes are spaced around said stanchion, each of said vanes being adapted for catching the wind for rotating said annular rings such that rotation of said annular rings rotates said stanchion, said stanchion being coupled to a generator, said generator being

adapted for producing electricity when the wind strikes said blades and rotates said shaft.

10. The turbine generator apparatus as set forth in claim 9, further comprising:

each of said vanes comprising a flexible material, said flexible material of each of said vanes extending parallel to an longitudinal axis of said stanchion such that said flexible material of said vanes is adapted for flexing and catching the wind for rotating said annular rings and said stanchion.

11. The turbine generator apparatus as set forth in claim 10, further comprising:

said annular rings having an extended position, said extended position of said annular rings stretching said vanes vertically such that said vanes are prevented from flexing and catching the wind for minimizing rotation of said annular rings and said stanchion.

12. The turbine generator apparatus as set forth in claim 10, further comprising:

said annular rings having a deployed position, a distance between said annular rings being less than a length of each of said vanes when said annular rings are in said deployed position such that said vanes are adapted for flexing and catching the wind for turning said annular rings and said stanchion.

13. A turbine generator apparatus for generating electricity from solar radiation and wind, the turbine generator apparatus comprising:

a base assembly having a lower portion and an upper portion, said lower portion being adapted for resting on a support surface, said lower portion being for supporting said upper portion of said base assembly;

a solar assembly being coupled to said upper portion of said base assembly, said solar assembly being adapted for collecting solar radiation and converting the solar radiation into electricity;

a power storage assembly being operationally coupled to said solar assembly, said power storage assembly being adapted for storing electricity from said solar assembly, said power storage assembly being positioned within said lower portion of said base assembly such that said lower portion of said base assembly is adapted for protecting said power storage assembly from adverse weather; and

a turbine assembly being coupled to said upper portion of said base assembly, said turbine assembly being adapted for producing electricity from wind, said turbine assembly being operationally coupled to said power storage assembly such that said power storage assembly is adapted for storing electricity produced from said turbine assembly;

wherein said base assembly having a junction portion, said junction portion being positioned between said lower portion and said upper portion, said junction portion being rotatably coupled to said lower portion of said base assembly such that said junction portion is rotatable with respect to said lower portion of said base assembly, said upper portion being pivotally coupled to said

junction portion such that said upper portion pivots with respect to said junction portion, said junction portion being adapted for permitting said solar assembly to be directed towards the sun, said junction portion being adapted for permitting said turbine assembly to be directed into the wind;

wherein a processing assembly being operationally coupled to said junction portion of said base assembly, said processing assembly being for effecting rotation of said junction portion with respect to said lower portion of said base assembly and pivoting of said upper portion with respect to said junction portion when said solar assembly is to be directed towards the sun and said turbine assembly is to be directed into the wind;

wherein said solar assembly comprising a plate portion, said plate portion being coupled to said upper portion of said base assembly, said solar assembly comprising a plurality of solar cells, each of said solar cells being positioned on an upper surface of said plate portion, each of said solar cells being adapted for converting solar radiation into electricity, each of said solar cells being operationally coupled to said power storage assembly such that said power storage assembly stores electricity from each said solar cells;

wherein said turbine assembly comprising a head assembly and a stanchion, said stanchion being coupled to said upper portion of said base assembly such that said stanchion upwardly extends from said solar assembly, said head assembly being rotatably coupled to said stanchion opposite said base assembly, said head assembly being adapted for being rotated with respect to said

stanchion of said turbine assembly when said head assembly is directed into the wind;

wherein said turbine assembly having a shroud sleeve, said shroud sleeve being upwardly extending from said solar assembly, said shroud sleeve having a lumen such that said stanchion is extending through said lumen of said shroud sleeve, said stanchion being retractable with said shroud sleeve such that said head assembly is retractable into said lumen of shroud sleeve for protecting said head assembly from adverse weather;

wherein said head assembly comprising a pair a blades, each of said blades being coupled to a shaft, one of said blades diametrically extending away from the other of said blades, each of said blades having an airfoil cross-section such that the wind striking said blades forces said blades into rotary motion thereby rotating said shaft, said shaft being operationally coupled to a generator;

wherein said blades comprising a first blade and a second blade, said first blade being coupled to said shaft, said second blade having a collar, said collar having an aperture such that said aperture of said collar being for receiving said shaft, said collar having a cut out, said cut out receiving said first blade when said second blade is positioned diametrically to said first blade such that said blades are balanced when said blades are rotated by the wind, said collar of said second blade permitting rotation of said second blade adjacent to said first blade for facilitating storage of said head assembly.